PEGOLAND® FLEX

Deformable mixed binders' cementitious adhesive

CE
EN 12004
C2 TE
S1

ÉMISSIONS DANS L'AIR INTÉRIEUR
A+
A+ A B C

GlobalEPD
A VERIFIED ENVIRONMENTAL DECLARATION

DESCRIPTION

Cementitious adhesive of mixed binders, endowed with flexibility, great adhesion, with reduced slip and extended open time, for laying interior and exterior floor and wall tiles. Specially recommended for façades, big surfaces floors and radiant heating floors. This adhesive is ideal for bonding all types of ceramic pieces.

TECHNICAL CARACTERISTICS

High-resistance cement-based product, with selected aggregates, additives and synthetic resins that guarantee high bond strength, excellent workability, and resistance to ageing.

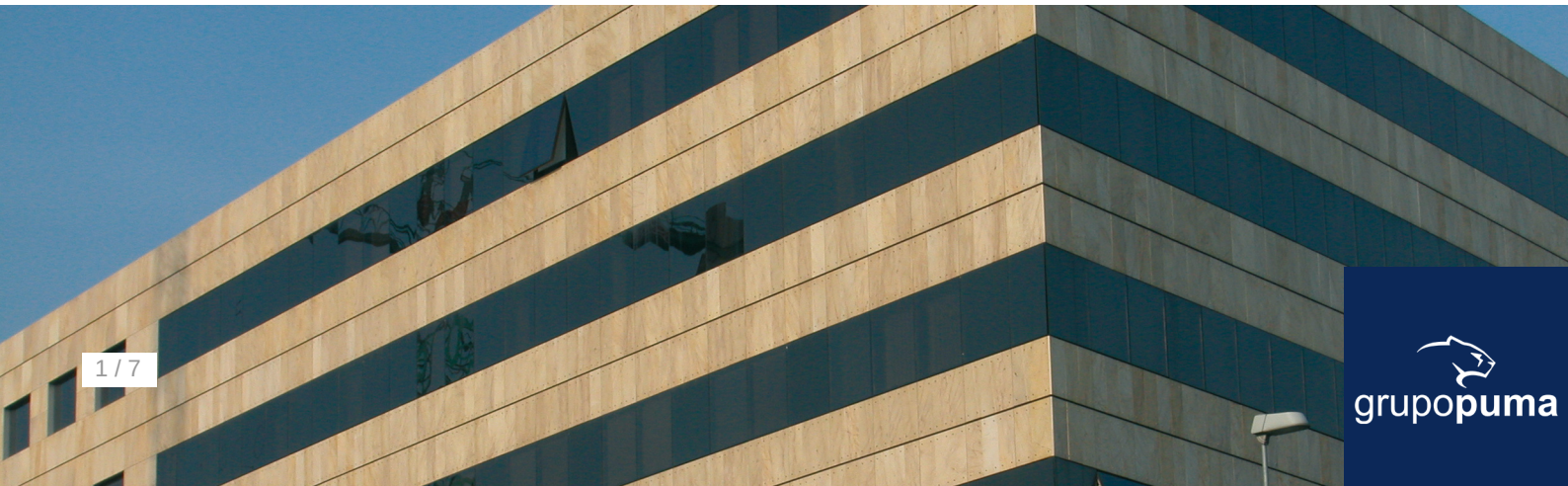
ADVANTAGES AND USES

- Reduced slip.
- Excellent initial adhesion.
- Long open time, it allows the rectification of pieces.
- Deformable. S1 type according to EN 12002.
- Due to its water retention power, there is no need to moisten the substrate.
- Adhesion of all types of ceramic pieces, porcelain stoneware, marble, granite, and natural stone.
- Adhesion of large-format pieces, bonding of extensive surfaces with heavy traffic.
- Suitable for interior and exterior areas. Façades.
- Swimming pools renders. Cold storage rooms render.

SUITABLE SUBSTRATES

- Conventional cement-base substrates.
- Suitable for all type of plasterboard partitions (PYL type).
- Tiling of radiant heating floors and walls.
- Overlays on marble, granite, terrazzo, natural stone, and all types of ceramic substrates for interior and exterior floors and interior walls.
- Installation of ceramic on cementitious weather resistant systems from the MORCEM DRY range.
- Substrates must be resistant enough, stable, sound, and clean. Free of dust, release agents, organic products, etc.
- All substrates should have the corresponding flatness. If this is not the case, make screeds of up to 5 mm with the same product 48 hours before gluing. For a greater thickness apply:
  - On Screeds: Apply NIVELAND 10R levelling paste or PAVILAND RECRECIDO AUTONIVELANTE depending on the substrate and requirements.
  - On flooring: Use regularization mortars with adequate tensile strength and with a curing shrinkage already completed.

- In case of heavy heat, wind, or very absorbent substrates, it is advisable to moisten the substrate and wait until the water film has been completely absorbed.
- In exterior floors, the substrate must have a slope equal or greater than 1%. Do not apply on top of paint.
- Do not apply on top of gypsum, plaster, anhydrite, or any other substrates with high content of sulphates, or in contact with water or moisten with high content of sulphates.
- All substrates must comply with the specifications outlined in section 6.4 of UNE 138002 standard.



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APPLICATION PROCEDURE

- Add water and mix manually or mechanically until getting a homogeneous consistence, easy to work with. Let the paste rest around 5 min. then mix again.
- Spread the kneaded product on the substrate with the help of a trowel on a maximum extension of 2m2. Comb the area with a notched trowel to level the thickness (check table).
- Place the tiles on the fresh adhesive, pressing and moving them until getting a complete smashing of the grooves and the proper adhesion of all the ceramic surface. Periodically check the stickiness of the adhesive by lifting a previously laid tile, if the appearance of a film without transfer on the surface of the adhesive or dehydration of the adhesive is observed, proceed to remove the material, and apply new product.
- Laying of tiles by back buttering method outdoors, for tiles with a bigger to 45 cm side, on floors for commercial or industrial use. If there is underfloor heating, in the laying of ceramic tiles, if levelling systems are used or if the tiles have a relief that may interfere the gluing process.
- Respect the placement joints between tiles as indicated in section 7.7 of UNE 138002 standard.
- UNE 138002 138002. For interior and pool areas, the joint width should be ≥ (1.5 - 3) mm, and for exterior areas, the joint width should be ≥ (3 - -5) mm, depending on the type of installation and the larger side of the tile being placed.
- Joints should be refilled after 24 hours in vertical parameters and 48 hours after in pavements. Use a suitable mortar from the MORCEMCOLOR, considering the type of joint.

NOTE: The shorter the time between combing and laying the tile, the better results will be obtained.

NOTCHED-TROWEL PANEL

Maximum weight on vertical surfaces: 40 kg/m²

Type of tiles	Longer side's size (cm)	Trowel for adhesive application to the substrate	Trowel for adhesive application on the back side of the tile
Mosaic	≤ 10 cm	V 3	-
Ceramic tile	≤ 20 cm	U 6	-
	≤ 30 cm	U 6	-
	≤ 45 cm	U 8	-
	≥ 45 cm	U 8	Smooth
	≤ 120 cm	U 10 / R 10	Smooth
	≥ 120 cm	U 12 / R 12	Smooth / V 3 / U 3
Ceramic sheet > 3 mm - ≤ 6 mm	≤ 90 cm	U 6	Smooth
	≤ 260 cm	U 8	Smooth / V 3 / U 3
Ceramic sheet > 6 mm - ≤ 9 mm	≤ 360 cm	U 10	Smooth / V 3 / U 3
NOTE: In the case of extruded tiles or those with a pronounced back, it is always necessary to conduct a double spreading with the smooth side of the trowel, regardless of the tile format.			

RECOMMENDATIONS

- The successful completion of ceramic installation can only be ensured through careful planning. Therefore, we recommend consulting the current national standards in each country, such as the UNE 138002 standard in Spain, which provides specifications for material selection, proper planning, use, and installation, to achieve the required levels of quality, performance, and durability.
- Do not apply in temperatures below 5ºC or above 35ºC, and avoid application in conditions at risk of frost, rain, intense winds, or direct sunlight. Under extreme weather conditions (high wind or elevated temperatures) drying occurs faster.
- Temperatures, ventilation, absorption of the substrate and coating materials can vary the workability and setting times of the adhesive.
- Never apply using the “spot bonding” technique.
- Respect the movement joints (structural, contraction, expansion, and perimeter joints) as indicated in section 7.8 of UNE 138002 standard. These joints can be addressed by using prefabricated joints or filling them with an elastic sealant from the PUMALASTIC range.

Dimensioning of expansion joints:

Application scope	Location and dimensions	Width of the joint (mm)
Exterior walls	Under each slab	≥ 8 mm
	Separation length 3 m - 4 m linear	
	Maximum regular area 16 m^2	
Interior floors	Respect open contraction joints	≥ 5 mm
	Otherwise: linear separation length ≤ 8 m.	
	Maximum regular area 40 m^2	
Exterior floors	Separation length 2.5 m - 5 m linear	≥ 8 mm
	Maximum regular area. 16 m^2	
Singular points	Door steps	≥ 8 mm
	Changes of floors	
NOTE: When these joints affect every coat in the ceramic system, they must meet the conditions of shrinkage joints.		

Dimensioning of perimeter joints:

Application scope	Location and dimensions	Width of the joint (mm)
Interior walls	Perimeter joints - wall / ceiling intersection	≥ 8 mm
	Wall / wall intersection	≥ 5 mm
Exterior walls	Corners inside the building	≥ 8 mm
	Corners outside the building	
Interior floors / Monolithic/ Parquet	Perimeter joints and intersections with other elements or devices	≥ 8 mm
Exterior floors	Perimeter joints and intersections with other elements or devices	≥ 8 mm
Singular points	Intersection joints at encounters with carpentry	≥ 5 mm

- On floors with radiant heating, apply when the substrate is at room temperature (between 5ºC and 30ºC). Radiant heating floors must be turned off at least 48 hours in advance and they must be turned on gradually after at least 7 days from the installation of the flooring and the grouting operation.
- Cold rooms must be off until the correct curing of the adhesive occurs for, at least 7 days, depending on environmental conditions.
- Swimming pools can be refilled 7 days after applying the adhesive. The water tightness of the pool must be ensured by the construction of the pool itself.
- In applications on plasterboard partitions, make sure the substrate is well fixed to prevent movement.
- Remove any spare or bad adhered pieces in ceramic pavements and fill the gaps with mortar one day before the actual application of the product. Make sure the old ceramic is free from greases or waxes, if necessary, mill the surface until the old pottery loses its shine. In case of doubt, conduct a preliminary test to establish the suitability of the solution provided.
- On exterior façades the material will be always applied with anchoring or fixation.
- Mechanically apply when any of the following conditions are met:
  - More than 2400 cm2 formats.
  - One of the tile's sides is more than 60 cm
  - More than 40 kg / m^2.
  - More than 3 metres hight.

- On façades when placing the top row of tiles at the top, it will be convenient to apply the adhesive with the grooves horizontally to prevent the water that could eventually enter the system from descending through the vertical grooves, affecting a larger area.
- For pieces with fibreglass mesh reinforcement glued on the back, consult technical department.
- Use a PEGOLAND PROFESIONAL range adhesive for gypsum-based substrates, avoid old gypsum or weak plaster.

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- Use PEGOLAND FLEX RECORD or PEGOLAND PROFESIONAL ELITE for slate.
- Pieces that can get stained due to their high-water absorption must be placed with fast-setting adhesives. Use PEGOLAND FAST FLEX C2FTE S1.

PACKAGING AND STORAGE

25 kg laminated paper sacks and 5 kg polythene containers.
Storage:
Up to 1 year (25kg laminated paper sacks)
Up to 2 years (5 kg polythene containers)
Its original closed container, away from extreme weather conditions and humidity.
(Statistic results obtained under standard conditions)

TECHNICAL DATA

(Statistical data obtained under standard conditions)

Aspect	WHITE or GREY powder
Adjustment time Approx.	Approx. 30 min. (depending on weather conditions)
Paste shelf life Approx.	Approx. 2 hours (depending on weather conditions)
Initial tensile adhesion strenght	≥ 1,0 N/mm^2
Tensile adhesion strenght after water inmersion	≥ 1,0 N/mm^2
Tensile adhesion strenght after heat ageing	≥ 1,0 N/mm^2
Tensile adhesion strenght after freeze-thaw cycles	≥ 1,0 N/mm^2
Service temperature	-30ºC a 90ºC
UNE-EN 12004 Classification	C2 TE
UNE-EN 12002 Classification	S1
Approximate yield	single spreading: ± 4 Kg/m^2
	Back buttering method: ± 6 Kg/m^2

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CE MARK

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(Córdoba)
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PEGOLAND FLEX BLANCO
Nº: 100003-146
EN 12004:2007+A1:2012
Improved deformable cementitious adhesive with reduced slip and extended open time, for the installation of interior and exterior floors, interior and exterior rendering, façades, radiant heating floors systems, cold rooms, large area floors and overlays, pool rendering, and installation over cementitious waterproofing systems.

Reaction to fire:	Class E
Adhesion:	
Initial adhesion to traction:	≥ 1N/mm^2
Durability:	
Adhesion to traction after water immersion:	≥ 1N/mm^2
Adhesion to traction after thermal ageing:	≥ 1N/mm^2
Adhesion to traction after ice / thaw cycles:	≥ 1N/mm^2
Hazardous substances:	Consult safety data sheet

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GRUPO PUMA SL
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PEGOLAND FLEX GRIS
Nº: 100157-159
EN 12004:2007+A1:2012
Improved deformable cementitious adhesive with reduced slip and extended open time, for the installation of interior and exterior floors, interior and exterior rendering, façades, radiant heating floors systems, cold rooms, large area floors and overlays, pool rendering, and installation over cementitious waterproofing systems.

Reaccion al fuego:	Class E
Adhesion:	
Initial adhesion to traction:	≥ 1N/mm^2
Durabilidad:	
Adhesion to traction after water immersion:	≥ 1N/mm^2
Adhesion to traction after thermal ageing:	≥ 1N/mm^2
Adhesion to traction after ice / thaw cycles:	≥ 1N/mm^2
Hazardous substances:	Consult safety data sheet

ENVIRONMENTAL PRODUCT DECLARATION (EPD)

Cement based mortar prepared with aggregates that are supplied close to the production center, which reduces the greenhouse gas emissions that would otherwise arise from their transport. Manufactured in production centers with an Environmental management certified system following ISO 14001 regulation, offering a firm promise of sustainability and respect for the environment.

Cement based mortar with type III ecological label (the most strict) Environmental Product Declaration verified externally by AENOR.

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LEGAL DISCLAIMER

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In any case, the drafter of the work project, the technical management or the person responsible for the work, or collaterally the application company or other parties involved in the process and / or execution of the work, must ensure the suitability of the products addressing the characteristics of them, as well as the conditions, support and possible pathologies of the work in question.

The values obtained by GRUPO PUMAS's products or its constructive solutions that, as the case may be, are determined by the EN standards or any other regulation that applies to it in each case refers exclusively to the conditions specifically stipulated in said regulation and that are referred to, among others, to certain characteristics of the support, humidity and temperature conditions, etc. without being them required in the tests obtained under different conditions, all in accordance with the relevant regulation.

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